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PREVENTION OPPORTUNITIES UNDER THE BIG SKY

2009 H1N1 INFLUENZA: A status report

The first influenza pandemic of the 21st Century was declared by the World Health Organization in June 2009. The virus causing the pandemic, 2009 H1N1 influenza A virus, had been isolated and characterized in April.[1] Remarkably, by October a vaccine had been processed from this virus and, although initially in limited supply, was being administered to persons at high risk for infection or complication.[2] In the U.S. a wave of infections caused by this virus occurred in the spring; cases continued to occur throughout the summer. In the autumn a second wave of infections occurred and is continuing.

In Montana the first confirmed case of H1N1 influenza was identified in May. Additional cases including some clusters of cases were confirmed during the summer. The first death related to H1N1 influenza in Montana was reported in August. This issue of *Montana Public Health* provides a status report for influenza in the U.S. and in Montana during August-November, 2009. Because the 2009-2010 influenza season has just begun, future reports will describe ongoing developments.

Infections and risk groups. Influenza activity was widespread in most states from mid-October through November, e.g., 46 states reported widespread activity during the week of November 9. In Montana influenza activity was widespread from the week of October 4 through the week of November 14; the activity decreased to regional the weeks of November 21 and 28. Essentially all influenza viruses isolated in the U.S. and in Montana during this period were 2009 H1N1 viruses. The estimated attack rates were higher for children and young adults than for older adults. A national network of physician offices and clinics (ILI Net) participate in a surveillance activity to monitor the percentage of outpatient visits that are due to influenza-like illness (ILI). From mid-September through mid-November the percentage of visits due to ILI for patients 0-24 years (approx 6-13% of visits during this period) was considerably higher than the percentage for patients 25-64 (approx 1-2%) or patients greater than 65 (less than 1%).[3]

Groups at risk for complications. Two measures used to monitor the severity of influenza illness are hospitalizations and deaths. Preliminary estimates for age-specific mortality rates for laboratory confirmed H1N1 influenza deaths in the U.S. from September 1 through December 4 are displayed in the Figure.[3] During this period the laboratory confirmed H1N1 influenza hospitalization rate was highest in children 0-4 years (27.5 per 100,000) and lowest in persons 65 or more (6.8). Although hospitalizations related to H1N1 influenza have not been reported completely in Montana, 18 deaths related to H1N1 influenza were reported from August through November. In Montana as in the U.S. the mortality rate has been higher for adults than for children and young adults.

Figure. Estimated rates for laboratory-confirmed deaths related to 2009 H1N1 influenza, reported Aug 30-Dec 4, 2009, U.S., by age group (N=1336)

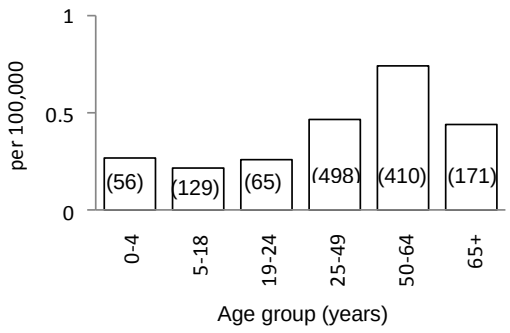

Table. 2009 H1N1 influenza mortality, Aug-Nov 2009, MT

Age(years)	Number	Rate/100,000
0-24	1	0.3
25-44	3	1.7
45-64	11	4.0
65+	3	2.2
All ages	18	1.9

At least 70% of the 17 adult deaths have occurred in persons with preexisting underlying medical conditions. The mortality rate related to H1N1 influenza during this period in Montana was markedly higher for American Indians (5 deaths; 7.6 per 100,000) than for whites (13 deaths; 1.5 per 100,000). Although it is important to interpret with caution rates based on a small number of events, the Montana results are consistent with a fourfold excess mortality for American Indians recently reported for the aggregate experience in 12 states.[4] In Montana and in the 12 other states a very high proportion of the Indian deaths were in persons with high risk medical conditions.

Prevention, control of influenza: vaccination and early intervention. The strategy to prevent influenza and control its complications relies on common sense behaviors (e.g., wash hands regularly, stay home when ill), and on vaccination and early treatment intervention in persons at high risk for complications. The first doses of 2009 H1N1 vaccine arrived in Montana in mid October. By December 9 more than 220,000 doses had been distributed to local and tribal health departments. Initially the vaccine was provided to selected target groups[2] (including health care workers, pregnant women, and children), then to adults younger than 65 with high risk medical conditions. By December 10 the vaccine supply allowed offering the vaccine to all persons older than 6 months who wished to be vaccinated.

It is particularly important for adults as well as children with heart disease, cancer, diabetes, asthma, and renal disease to be vaccinated.

Persons at high risk for influenza-related complications should be informed to recognize the signs and symptoms of influenza, and to seek medical attention quickly. These patients should have rapid access to telephone consultation, clinical evaluation, and treatment with influenza antiviral medication in order to decrease the risk of death.[5]

Recommendations to prevent and control influenza in persons with high risk for complication:

Persons at high risk for complication from infection with 2009 H1N1 influenza include pregnant women and persons with the following medical conditions:

- chronic pulmonary (including asthma)
- cardiovascular (except hypertension)
- renal
- hepatic
- neurologic/neuromuscular
- hematologic
- metabolic (including diabetes)
- immunosuppression

Vaccination with both 2009 H1N1 and seasonal influenza vaccines should be provided to these persons.

These persons* should also have been vaccinated with pneumococcal vaccine.[6, 7]

- pneumococcal polysaccharide vaccine (PPSV23) for adults
- pneumococcal conjugate vaccine (PCV7) for children less than 5 years

[*except pregnant women]

If these persons experience ILI (i.e., fever, sore throat, body aches, fatigue) they should seek medical attention as soon as possible.

For more information contact the Communicable Disease Epidemiology Section, 406-444-0273, or the Immunization Section, 406-444-5580.

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6. CDC. Prevention of pneumococcal disease: recommendations of the Advisory Committee on Immunization Practices (ACIP). MMWR 1997; 46 (No. RR 8):1-20.
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